CLPTO

Nlh

09/10/04

Claims 1-12 are canceled.

13. A vent apparatus adapted to be coupled to a vehicle fuel tank, the apparatus comprising

a valve housing made from a non-weldable plastics material and formed to include a cylindrical sleeve defining an interior region, a top wall coupled to the cylindrical sleeve and formed to include an aperture and an annular flange defining an annular channel, and a venting outlet coupled to the top wall at the aperture and provided to conduct fuel and fuel vapor from the interior region of the cylindrical sleeve to another destination outside the valve housing,

a valve positioned to lie within the interior region of the cylindrical sleeve and formed to move within the interior region of the cylindrical sleeve to open and close the aperture defined by the top wall of the valve housing which leads to the venting outlet, and

a tank mount made from a weldable plastics material, coupled to the top wall of the valve housing, and formed to include an outer rim adapted to be coupled to the fuel tank to support the cylindrical sleeve within the tank, an annular rib formed to be received within the annular channel of the flange of the top wall, and a top wall coupled to and positioned to lie between the outer rim and the annular rib, the tank mount being positioned to cause the top wall of the tank mount and the top wall of the valve housing to lie in coplanar relation with one another.

14. The apparatus of claim 13, wherein the tank mount is ring-shaped and is further formed to include an annular interior wall defining an opening formed to

receive the top wall of the valve housing, and the annular inner rib of the tank mount is coupled to the annular interior wall and is formed to extend into the opening.

15. The apparatus of claim 14, wherein the interior wall of the tank mount includes an upper face and a lower face and the annular inner rib is positioned to lie midway between the upper face and the lower face.

16. The apparatus of claim 14, wherein the top wall of the tank mount is positioned to extend radially outwardly from the interior wall and the outer rim of the tank mount is coupled to the top wall of the tank mount, formed to extend radially downwardly from the top wall of the tank mount, and formed to include a bottom face adapted to be coupled to the fuel tank.

17. The apparatus of claim 14, wherein the inner rib is formed to define a notch and the flange of the valve housing is formed to include a locator tab to be received within the notch in order to prevent rotation between the tank mount and the valve housing.

18. The apparatus of claim 13, wherein the venting outlet of the valve housing is positioned to lie above the tank mount and the cylindrical sleeve of the valve housing is positioned to lie below the tank mount.

19. The apparatus of claim 13, wherein the top wall of the tank mount further includes a top surface and a bottom surface and the outer rim of the tank mount includes an outer surface and an inner surface, and wherein the top surface of the top wall has a length, X, and the outer surface of the outer rim has a height, Y, and further wherein X is greater than Y.

20. A vent apparatus adapted to be coupled to a fuel tank, the apparatus comprising

a valve housing formed to include a cylindrical sleeve defining an interior region, a top wall coupled to the cylindrical sleeve and formed to include an aperture and an annular flange defining an annular channel, and a venting outlet coupled to the top wall at the aperture in order to conduct fuel and fuel vapor from the interior region of the cylindrical sleeve to another destination outside the valve housing,

a valve positioned to lie within the interior region of the cylindrical sleeve and formed to move within the interior region of the cylindrical sleeve to open and close the aperture defined by the top wall of the valve housing, and

a tank mount coupled to the top wall of the valve housing and formed to include an outer rim adapted to be coupled to the fuel tank to support the cylindrical sleeve within a mounting aperture of the tank and an annular rib formed to be received within the annular channel of the flange, and wherein the valve housing is includes a locator tab coupled to the annular flange and the annular rib includes a notch formed to receive the locator tab of the valve housing in order to prevent rotation between the valve housing and the tank mount.

21. The apparatus of claim 20, wherein the tank mount includes a top wall and the venting outlet of the valve housing is positioned to lie above the top wall of the tank mount and the cylindrical sleeve of the valve housing is positioned to lie below the top wall of the tank mount.

22. The apparatus of claim 21, wherein the tank mount further includes an interior wall defining an opening for receiving the top wall of the valve housing therein and the inner rib of the tank mount is coupled to the interior wall and positioned to extend into the opening of the tank mount, and wherein the tank mount further includes a top wall positioned to extend radially outwardly from the interior wall, and the outer rim is coupled to the top wall and is positioned to extend radially downwardly from the top wall.

23. The apparatus of claim 21, wherein the valve housing is made from a non-weldable plastics material and the tank mount is made from a weldable plastics material and the inner rib of the tank mount is received within the channel of the flange of the top wall of the valve housing to cause the tank mount to be mechanically coupled to the valve housing.

24. A vent apparatus adapted to be coupled to a fuel tank, the apparatus comprising

a valve housing made from a non-weldable plastics material and formed to include a cylindrical sleeve defining an interior region, a top wall coupled to the cylindrical sleeve and formed to include an aperture and an annular flange having an interior opening forming a channel adapted to face the fuel tank, and a venting outlet coupled to the top wall at the aperture and provided to conduct fuel and fuel vapor from the interior region of the cylindrical sleeve to another destination outside the valve housing.

a valve positioned to lie within the interior region of the cylindrical sleeve and formed to move within the interior region of the cylindrical sleeve to open and close the aperture defined by the top wall of the valve housing which leads to the venting outlet, and

a tank mount made from a weldable plastics material and formed to be received within the channel of the flange of the top wall of the valve housing to cause the flange to completely surround the tank mount, the tank mount having a bottom surface adapted to be weldably coupled to the fuel tank in order to support the valve housing within a mounting aperture formed in the fuel tank.

25. The apparatus of claim 24, wherein the tank mount forms a T-shaped cross section and the channel of the flange of the valve housing is similarly formed to define a T-shaped cross-section.

26. The apparatus of claim 25, wherein the tank mount includes a horizontal portion and a vertical portion coupled to the horizontal portion at a first end and adapted to be weldably coupled to the fuel tank at a second end defining the bottom surface.

27. The apparatus of claim 25, wherein the tank mount is further formed to define a notch and the flange of the valve housing includes a locator tab formed to be received within the notch of the tank mount in order to prevent rotation between the tank mount and the valve housing.

28. The apparatus of claim 24, wherein the annular flange of the valve housing is formed to include a top wall coupled to the top wall of the valve housing, opposite side walls positioned to lie in spaced-apart relation to each other, and a tab portion coupled to each side wall in order to define the T-shaped channel.

29. A vent apparatus adapted to be coupled to a fuel tank, the apparatus comprising

a valve housing made from a non-weldable plastics material and formed to include a cylindrical sleeve defining an interior region, a top wall coupled to the cylindrical sleeve and formed to include an aperture and an annular flange having an interior opening forming a channel adapted to face the fuel tank, and a venting outlet coupled to the top wall at the aperture and provided to conduct fuel and fuel vapor from the interior region of the cylindrical sleeve to another destination outside the valve housing,

a valve positioned to lie within the interior region of the cylindrical sleeve and formed to move within the interior region of the cylindrical sleeve to open and close the aperture defined by the top wall of the valve housing which leads to the venting outlet, and

a tank mount made from a weldable plastics material, formed to include a T-shaped portion formed to be received within the channel of the flange of the top wall of the valve housing to cause the flange to completely surround the T-shaped portion and a base portion coupled to the T-shaped portion and adapted to be weldably coupled to the fuel tank in order to support the valve housing within a mounting aperture of the fuel tank.

30. The apparatus of claim 29, wherein the flange of the valve housing is formed to include a locator tab and the T-shaped portion of the tank mount is formed to define a notch formed to receive the locator tab therein to prevent rotation of the tank mount relative to the valve housing.

31. The apparatus of claim 29, wherein the T-shaped portion is formed to include a horizontal portion and a vertical portion coupled to the horizontal portion at a first end and coupled to the base portion at a second end, and the base portion is formed to include a top surface coupled to the vertical portion, an interior surface, and exterior surface, and a bottom surface adapted to be coupled to the fuel tank.

32. The apparatus of claim 31, wherein the flange is formed to include an outer side wall and the outer side wall is positioned to lie in coplanar relation with the exterior surface of the base portion of the tank mount.

33. The apparatus of claim 31, wherein the annular flange of the valve housing is formed to include a top wall coupled to the top wall of the valve housing, opposite side walls positioned to lie in spaced-apart relation to each other, and a tab portion coupled to each side wall in order to define the T-shaped channel.

Claim 34 is canceled.